

General

Title

Heart failure in adults: percentage of patients with heart failure diagnosis who have a follow-up appointment with their primary care clinician within seven days of hospital discharge.

Source(s)

Pinkerman C, Sander P, Breeding JE, Brink D, Curtis R, Hayes R, Ojha A, Pandita D, Raikar S, Setterlund L, Sule O, Turner A. Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [190 references]

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients age 18 years and older with heart failure diagnosis who have a follow-up appointment with their primary care clinician within seven days of hospital discharge.

Rationale

The priority aim addressed by this measure is to increase the rate of heart failure patients age 18 years and older who have comprehensive patient education and follow-up care.

Heart failure is a major health problem in the United States (U.S.), and the incidence of the disease is increasing. The overall estimated 2004 prevalence of heart failure in adults age 20 and older in the U.S. was 5.2 million, with it being equally distributed among men and women.

Comprehensive discharge planning with detailed written instructions for the patient and caregivers should be implemented to promote compliance and understanding of treatment and educational goals. A discharge follow-up appointment should be scheduled within 7 to 10 days to assess the patient's status, titrate medications toward recommended target doses, and to reinforce and supplement education initiated in the hospital. Communication with the next care clinician needs to be completed in a timely manner so all care team members in all settings have the information necessary to care for the patient. Accountability needs to be assigned for care so the patient doesn't "fall between the cracks" of hospital, primary and specialty care.

Evidence for Rationale

Adams KF Jr, Lindenfeld J, Arnold JM, et al. HFSA 2006 comprehensive heart failure practice guideline. *J Card Fail.* 2006 Feb;12:e1-122.

Heart Failure Society of America, Lindenfeld J, Albert NM, Boehmer JP, Collins SP, Ezekowitz JA, Givertz MM, Katz SD, Klapholz M, Moser DK, Rogers JG, Starling RC, Stevenson WG, Tang WH, Teerlink JR, Walsh MN. HFSA 2010 comprehensive heart failure practice guideline. *J Card Fail.* 2010 Jun;16(6):e1-194. [PubMed](#)

Jessup M, Abraham WT, Casey DE, Feldman AM, Francis GS, Ganiats TG, Konstam MA, Mancini DM, Rahko PS, Silver MA, Stevenson LW, Yancy CW. 2009 focused update: ACCF/AHA guidelines for the diagnosis and management of heart failure in adults: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *Circulation.* 2009 Apr 14;119(14):1977-2016. [PubMed](#)

Koelling TM, Johnson ML, Cody RJ, Aaronson KD. Discharge education improves clinical outcomes in patients with chronic heart failure. *Circulation.* 2005 Jan 18;111(2):179-85. [PubMed](#)

Malcom J, Arnold O, Howlett JG, Ducharme A, Ezekowitz JA, Gardner M, Giannetti N, Haddad H, Heckman GA, Isaac D, Jong P, Liu P, Mann E, McKelvie RS, Moe GW, Svendsen AM, Tsuyuki RT, O'Halloran K, Ross HJ, Sequeira EJ, White M, Canadian Cardiovascular Society. Canadian Cardiovascular Society Consensus Conference guidelines on heart failure--2008 update: best practices for the transition of care of heart failure patients, and the recognition, investigation and treatment of cardiomyopathies. *Can J Cardiol.* 2008 Jan;24(1):21-40. [201 references] [PubMed](#)

National Health and Nutrition Examination Survey 1999 to 2004 [NHANES] Data 1999-2004. [internet]. Hyattsville (MD): National Center for Health Statistics;

Pinkerman C, Sander P, Breeding JE, Brink D, Curtis R, Hayes R, Ojha A, Pandita D, Raikar S, Setterlund L, Sule O, Turner A. Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [190 references]

Roger VL, Weston SA, Redfield MM, Hellermann-Homan JP, Killian J, Yawn BP, Jacobsen SJ. Trends in heart failure incidence and survival in a community-based population. *JAMA.* 2004 Jul 21;292(3):344-50. [PubMed](#)

Primary Health Components

Heart failure; follow-up care

Denominator Description

Number of patients 18 years and older with a diagnosis of heart failure (see the related "Denominator

Inclusions/Exclusions" field)

Numerator Description

Number of patients 18 years and older with a diagnosis of heart failure who have a follow-up appointment with their primary care clinician within seven days of hospital discharge

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Additional Information Supporting Need for the Measure

- In age 20 to 39, the incidence of heart failure is 0.3% of the population in men and 0.2% of the population in women. In the ages 40s and 50s, the incidence is 2% in men and 1.5% in women. In the 60 to 79 age group, the incidence is 7.2% in men and 5.2% in women. However, once reaching age 80, the incidence of heart failure is higher in women, with 11.6% of men and 12.4% of women.
- Seventy-five percent of heart failure cases have antecedent hypertension in that the lifetime risk for heart failure doubles for people with blood pressure greater than 160/90 versus those with blood pressure less than 140/90. A community-based cohort study conducted in Olmsted County, Minnesota, showed that the incidence of heart failure (International Classification of Diseases, Ninth Revision [ICD9]-428) has not declined during the past two decades, but survival after onset has increased overall, with less improvement among women and elderly persons.

Evidence for Additional Information Supporting Need for the Measure

National Health and Nutrition Examination Survey 1999 to 2004 [NHANES] Data 1999-2004. [internet]. Hyattsville (MD): National Center for Health Statistics;

Pinkerman C, Sander P, Breeding JE, Brink D, Curtis R, Hayes R, Ojha A, Pandita D, Raikar S, Setterlund L, Sule O, Turner A. Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2013 Jul. 94 p. [190 references]

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Extent of Measure Testing

Unspecified

National Guideline Clearinghouse Link

[Heart failure in adults.](#)

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Transition

Type of Care Coordination

Coordination across provider teams/sites

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Effective Communication and Care Coordination
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

The time frame pertaining to data collection is monthly.

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Institutionalization

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Number of patients age 18 years and older with a diagnosis of heart failure*

Data Collection: Query electronic medical records (EMR) for clinic visits within the last month for patients age 18 years and older with heart failure diagnosis and a hospital discharge within the last month.

*International Classification of Diseases, Ninth Revision (ICD-9) codes: 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.40, 428.41, 428.42, 428.43, 428.9. (Refer to the table "Descriptions of ICD-9 Codes" in the original measure documentation for code descriptions.)

Exclusions
Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of patients 18 years and older with a diagnosis of heart failure who have a follow-up appointment with their primary care clinician within seven days of hospital discharge

Exclusions
Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Percentage of heart failure patients who have a follow-up appointment with their primary care clinician within seven days of hospital discharge.

Measure Collection Name

Heart Failure in Adults

Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

Funding Source(s)

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and five sponsoring health plans in Minnesota and Wisconsin.

Composition of the Group that Developed the Measure

Work Group Members: Charles Pinkerman, MD (*Work Group Leader*) (Park Nicollet Health Services) (Cardiology); Paul Sander, MD (*Work Group Leader*) (North Memorial Health Care) (Cardiology); Joshua E. Breeding, PharmD, BCPS (Fairview Health Services) (Pharmacist); Shama Raikar, MD (HealthPartners Medical Group and Regions Hospital) (Internal Medicine); Oghomwen Sule, MD (Howard Young Medical Center) (Internal Medicine); Ashok Ojha, MD (Hutchinson Medical Center) (Internal Medicine); Rochelle Curtis, PA (Park Nicollet Health Services) (Cardiology); Deepti Pandita, MD (Park Nicollet Health Services) (Internal Medicine); Angela Turner, PA-C (Park Nicollet Health Services) (Cardiology); Darin Brink, MD (University of Minnesota Physicians) (Family Medicine); Rochelle Hayes, BS (Institute for Clinical Systems Improvement) (Systems Improvement Coordinator); Linda Setterlund, MA, CPHQ (Institute for Clinical Systems Improvement) (Clinical Systems Improvement Facilitator)

Financial Disclosures/Other Potential Conflicts of Interest

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In 2010, the ICSI Conflict of Interest Review Committee was established by the Board of Directors to review all disclosures and make recommendations to the board when steps should be taken to mitigate potential conflicts of interest, including recommendations regarding removal of work group members. This committee has adopted the Institute of Medicine Conflict of Interest standards as outlined in the report Clinical Practice Guidelines We Can Trust (2011).

Where there are work group members with identified potential conflicts, these are disclosed and discussed at the initial work group meeting. These members are expected to recuse themselves from related discussions or authorship of related recommendations, as directed by the Conflict of Interest committee or requested by the work group.

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Disclosure of Potential Conflicts of Interest

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National, Regional, Local Committee Affiliations: None

Guideline Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Financial/Non-Financial Conflicts of Interest: None

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Research Grants: None

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Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Financial/Non-Financial Conflicts of Interest: None

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Guideline Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Guideline Related Activities: Chronic Obstructive Pulmonary Disease

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Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

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Guideline Related Activities: Diagnosis and Initial Treatment of Stroke

Research Grants: None

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Guideline Related Activities: None

Research Grants: None

Financial/Non-Financial Conflicts of Interest: None

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2013 Jul

Measure Maintenance

Scientific documents are revised every 12 to 24 months as indicated by changes in clinical practice and literature.

Date of Next Anticipated Revision

The next scheduled revision will occur within 24 months.

Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in January 2016.

Measure Availability

Source available for purchase from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#)

. Also available to ICSI members for free at the [ICSI Web site](#)

and to Minnesota health care organizations free by request at the [ICSI Web site](#)

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NQMC Status

This NQMC summary was completed by ECRI Institute on October 14, 2013.

The information was reaffirmed by the measure developer on January 13, 2016.

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Production

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